

549,331

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
23 September 2004 (23.09.2004)

PCT

(10) International Publication Number
WO 2004/080523 A2

- (51) International Patent Classification⁷: A61N
- (21) International Application Number: PCT/GB2004/001033
- (22) International Filing Date: 12 March 2004 (12.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0305848.4 14 March 2003 (14.03.2003) GB
- (71) Applicant (for all designated States except US): HAMMERSMITH IMANET LTD [GB/GB]; Cyclotron Building, Hammersmith Hospital, Du Cane Road, London W12 0NN (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): RENTON, Michael, Leslie [GB/GB]; Hammersmith Imanet Ltd, Cyclotron Building, Hammersmith Hospital, London W12 0NN (GB). CREASEY, Shaun [GB/GB]; Hammersmith Imanet Ltd, Cyclotron Building, Hammersmith Hospital, London W12 0NN (GB). RANICAR, Alexander [GB/GB]; Hammersmith Imanet Ltd, Cyclotron Building, Hammersmith Hospital, London W12 0NN (GB).
- (74) Agents: HAMMETT, Audrey, Grace, Campbell et al.; Amersham plc, Amersham Place, Little Chalfont, Buckinghamshire HP7 9NA (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: RADIOPHARMACEUTICAL GENERATION SYSTEM

(57) **Abstract:** The present invention relates to radiopharmaceutical generation system for use in generating a radiopharmaceutical, and is particularly concerned with improving the amount of information, relating to the process of generating the pharmaceutical, that is available. In a first aspect of the invention, the radiopharmaceutical generation system comprises a fluid processing system arranged to perform one or more processes in relation to a radiopharmaceutical, the fluid processing system having a plurality of system elements and being arranged to output signals indicative of a state of the fluid processing system, each of said system elements having an expected operative state; and at least one monitoring software component arranged to derive data from said output signals and to compare said derived data with one or more operating conditions in order to identify system elements not in the expected operative state. Since the expected operating state of the system elements is monitored during execution of the processes, real-time monitoring is possible. This means that fault finding and trouble shooting is easier than it is with current systems.

BEST AVAILABLE COPY

WO 2004/080523 A2